

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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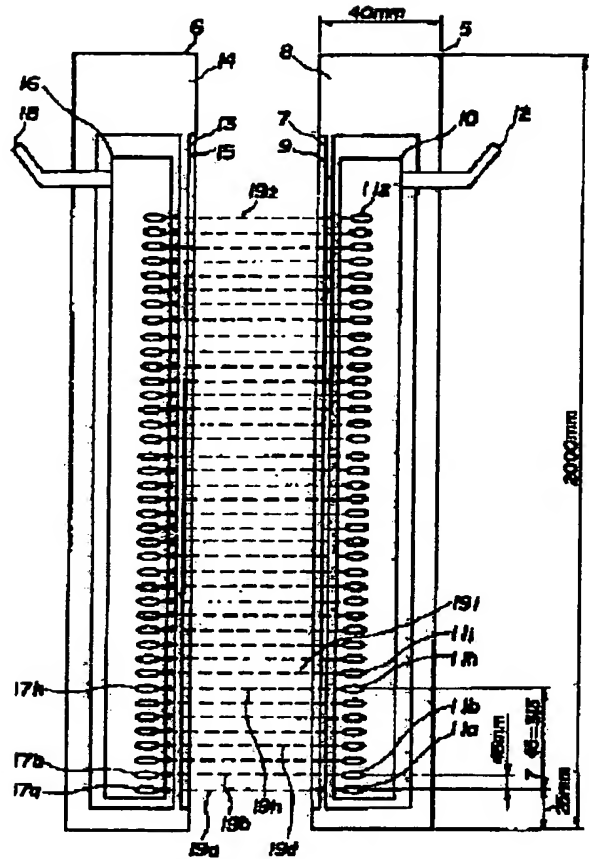
APPLICATION DATE : 19-02-99  
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APPLICANT : HITACHI BUILDING SYSTEMS CO LTD;

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TITLE : SAFETY DEVICE FOR ELEVATOR  
DOORWAY



**ABSTRACT :** **PROBLEM TO BE SOLVED:** To surely detect an obstacle by preventing the wrong operation of the emitter and light receiving body arranged on the lower part of emitters and light receiving bodies by the light rebounded by a car sill.

**SOLUTION:** A plurality of emitters 11a-11h arranged in the lower part is differed in infrared output from emitters 11i-11z arranged in the upper part, and the infrared output of the emitters 11i-11z arranged in the lower part is set smaller by about 30% than that of the emitters 11a-11h arranged in the upper part. Therefore, even if an infrared ray 19d is partially reflected by the surface of a car sill and incident on the light receiving body 17d opposed to the emitter 11d, the light receiving body 17d is never operated wrong by the attenuated rebounded light with low infrared output. Accordingly, even a low obstacle such as truck can be surely detected while preventing the wrong operation by rebound.

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